

REMARKS / DISCUSSION OF ISSUES

Claims 1-26 are pending in the application. Claims 1 and 21 are independent claims.

Allowable Subject Matter

Applicants note with gratitude the indication of allowability of claims 11 and 19. At the present time Applicants defer presenting the subject matter of these claims in independent form.

Rejections under 35 U.S.C. § 102

Claim 1 was rejected under 35 U.S.C. § 102(e) as being anticipated by *Hirawa* (U.S. Patent 6,831,674). While Applicants do not concede the propriety of this rejection, claim 1 is amended and for at least the reasons set forth herein is patentable over the applied art.

Rejections under 35 U.S.C. § 103

1. Claims 2,6,10 and 12-17 were rejected under 35 U.S.C. § 103(a) as being anticipated by *Hirawa* (U.S. Patent 5,612,713) and *Moore, et al.* (US Patent Publication 2003/0096497).
2. Claims 3-5 and 7-9 were rejected under 35 U.S.C. § 103(a) as being anticipated by *Hirawa*.
3. Claims 18, 20 and 21 were rejected under 35 U.S.C. § 103(a) as being anticipated by *Hirawa, Moore, et al.* and *Bhuva, et al.* (US Patent 5,612,713).
4. Claims 22-26 were rejected under 35 U.S.C. § 103(a) as being obvious in view of *Gale, et al.* (U.S. Patent 5,285,407) and JP 07-1777041 (cited by Examiner in earlier action).

For at least the reasons that follow, Applicants respectfully submit that claims 1-26 are patentable over the applied art.

As stated in MPEP § 2143, in order to establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations.

Additionally, Applicants rely at least on the following standard of law as it relates to obviousness. Under § 103, the scope and content of the prior art are to be determined; differences between the prior art and the claims at issue are to be ascertained; and the level of ordinary skill in the pertinent art resolved. Against this background the obviousness or nonobviousness of the subject matter is determined. Such secondary considerations as commercial success, long felt but unsolved needs, failure of others, etc., might be utilized to give light to the circumstances surrounding the origin of the subject matter sought to be patented. While the sequence of these questions might be reordered in any particular case, the factors continue to define the inquiry that controls. If a court, or patent examiner, conducts this analysis and concludes the claimed subject matter was obvious, the claim is invalid or unpatentable under § 103. *KSR Int'l Co. v. Teleflex Inc.*, 127 S. Ct. 1727; 82 U.S.P.Q.2D 1385 (2007), citing in part, *Graham v. John Deere Co.*, 383 U.S. 1, 17, 148 USPQ 459, 467 (1966).

However, the Court in *KSR* continued: "A factfinder should be aware, of course, of the distortion caused by hindsight bias and must be cautious of arguments reliant upon *ex post* reasoning. See *Graham*, 383 U.S., at 36, 86 S. Ct. 684, 15 L. Ed. 2d 545 (warning against a "temptation to read into the prior art the teachings of the invention in issue" and instructing courts to "'guard against slipping into the use of hindsight'" (quoting *Monroe Auto Equipment Co. v. Heckethorn Mfg. & Supply Co.*, 332 F.2d 406, 412 (CA6 1964)))." Moreover, if there is no suggestion to combine the teachings of the applied art, other than the use of Applicants' invention as a template for its own reconstruction, a rejection for obviousness is improper. *Ex parte Crawford, et al.* Appeal 20062429, May 30, 2007.

i. Claim 1

Claim 1 is drawn to a spatial light modulator and features:

*“...memory elements configured to store data therein and shift data therebetween; and light modulation elements alterable in response to the data stored in respective ones of the memory elements, wherein said **memory elements are configured to shift the data bi-directionally.**”*

The Examiner turns to *Hirawa*, and while conceding that the applied art does not specifically disclose that the memory elements are configured to shift data bi-directionally, this would have been obvious to one skilled in the art in view of *Hirawa* for the purpose of additional optical sampling. Applicants note that nowhere in the applied reference to *Hirawa* is there the disclosure or suggestion that additional optical sampling is a desired result or function. Thus, Applicants surmise that the Examiner’s extrapolation of the teachings of *Hirawa* to include the undisclosed bi-directional shifting of data does not derive from the disclosure itself. As such, the Examiner has provided no basis for the suggested modification of the applied art.

Applicants can only conclude that the Examiner is relying extrinsic evidence or personal knowledge that in view of *Hirawa* shifting data bi-directionally data to increase optical sampling would have been obvious.¹ Without extrinsic evidence in support of this position, Applicants submit that the rejection is improper. Applicants therefore assert that the extrinsic evidence pointing one of ordinary skill in the art to modify *Hirawa* must be provided. If the Examiner is relying on personal knowledge of for the suggested modification, an affidavit under 37 CFR § 1.104(d) (2). Otherwise, and for at least these reasons, Applicants respectfully submit that the rejection is reliant on the hindsight knowledge of Applicants invention and ex post reasoning to reach the conclusion that the suggested modification is obvious. This is wholly improper in the determination of

¹ Applicants’ disclosure does provide for moving the substrate and image subsections bi-directionally for additional optical oversampling. This cannot serve to establish obviousness for two reasons. First, this is not bi-directional data movement; and second, the use of Applicants’ own disclosure in the assessment of obviousness in view of a reference is wholly improper and plainly use of hindsight analysis.

patentability.

Therefore, and for at least the reasons set forth above, Applicants respectfully submit that for at least the reasons set forth above, claim 1 is patentable over the applied art. Moreover, claims 2-21, which depend from claim 1 immediately or ultimately, are patentable for at least the same reasons, and in view of their additional subject matter.

ii. Claims 3-5

As noted above, claim 3 is patentable in view of its dependence on claim 1. This notwithstanding, Applicants respectfully traverse the rejection as being illogical and improper. In the rejection, the Examiner concedes that the applied art to *Hirawa* fails to disclose memory arranged in rows and columns. Yet, claim 3-5 each feature rows, or columns, or both. Therefore reliance on *Hirawa* for such teachings when the Examiner concedes the reference fails to disclose such features is wholly improper. Therefore, the rejection of claims 3-5 is also improper for at least these reasons as well.

iii. Claims 22-26

Claims 22-26 were rejected under 35 U.S.C. § 103(a) as being obvious in view of *Gale, et al.* (U.S. Patent 5,285,407) and JP 07-1777041 (cited by Examiner in earlier action). This rejection is essentially identical to the rejection provided in the previous Office Action. Applicants' demur was not addressed in the present Office Action. Rather, the Examiner indicated in the Response to Arguments that in view of the new grounds of rejection presented, Applicants' argument are moot. **Applicants respectfully request full consideration of their position that the rejection of claims 22-26 is wholly improper.** Applicants re-state their position presently.

Claim 22 is drawn to a method for performing photolithography and features:

"loading data representing an image into memory elements...[and] shifting the data between the memory elements..."

The Examiner directs Applicants to column 4, lines 7-11 and lines 17-24 of *Gale et al.* for the alleged disclosure of the noted feature of shifting the data between the memory elements. While the noted portion does disclose the loading data in a shift register 12, and shifting the data to a latch circuit 13, there is ***no disclosure of shifting data between memory elements***. Rather, the data are loaded, latched and stored in rows sequentially; and data for the next row may be loaded into the shift register during the storing of a previous row. Therefore, the applied art fails to disclose at least one feature of claim 22 as alleged. Because at least one feature of claim 22 is not found in the applied art, a prima facie case of obviousness has not be made as to claim 22, and claim 22 is patentable over the applied art. In addition, claims 23-26 are patentable for at least the same reasons.

a. Foreign reference is improperly relied upon

The above notwithstanding, Applicants further submit that the rejection under 35 U.S.C. § 103(a) is believed to be improper for additional reasons. To wit, the rejection relies on a foreign document JP07-1777041. Applicants respectfully submit that the rejection is improper. A qualifying reference under this section of the Code must describe the invention in a printed publication in this or a foreign country, before the invention thereof by the applicant for patent. The applied Japanese reference is a printed publication from a foreign country. However, the applied reference is in Japanese and is not translated into English. In order to rely on this reference in a rejection, a translation of this document must be obtained, and respectfully, Applicants submit that a U.S. application claiming priority from this reference does not qualify as such as translation. Applicants point to MPEP § 706.02 and submit that the requirements relating to foreign references with English language abstracts applies to the present rejection.

Accordingly, the rejection based on JP 07-1777041 of claims 22-26 is improper and should be withdrawn for at least the additional reasons presented. Moreover, presentation of such a translation would be one of first impression for Applicants. If subsequent correspondence from the Examiner is in the form of a rejection relying on this

foreign reference, Applicants respectfully submit that such a rejection could only be non-final.

Conclusion

In view the foregoing, applicant(s) respectfully request(s) that the Examiner withdraw the objection(s) and/or rejection(s) of record, allow all the pending claims, and find the application in condition for allowance.

If any points remain in issue that may best be resolved through a personal or telephonic interview, the Examiner is respectfully requested to contact the undersigned at the telephone number listed below.

Respectfully submitted on behalf of:
Agilent Technologies, Inc.

s/William S. Francos/

by: William S. Francos (Reg. No. 38,456)

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